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ABSTRACT

This curriculum guide provides an introduction to Management Information Systems (MIS) concepts and techniques for students preparing to develop MISs in professional settings, and to assist in MIS evaluation. According to the guide, students are exposed to concepts drawn from systems theory, information theory, management theory, data base development, and computer use and control in the public sector. Course goals and content are listed, as is an overview of instructional strategies. It is noted that students are required to apply concepts discussed in class to a problem in a work setting. The course syllabus, an assessment system, and a take-home exam are appended. (CP)

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MANAGEMENT INFORMATION SYSTEMS IN THE PUBLIC SECTOR

A Human Resources Management Course Monograph

by

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ABSTRACT

The Human Resource Management Course Monographs provide descriptions of training courses for graduate students and manpower practitioners, including treatment of some of the major functions of manpower programs. Management Information Systems in the Public Sector is designed to introduce students to the theoretical principles of Management Information Systems in the public sector. The concepts covered are Systems Theory, Information Theory, Management Theory, Data Bases, Computer Use, and Information for Control in the Public Sector.

While the course is designed to be reasonably general in nature, the MIS covered in the CETA Management Information System Guide, 1974, is used as a starting point.

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1. INTRODUCTION

A. Description of Human Resources Management Curriculum

The Human Resources Management Option is a major component of the MBA program at the School of Management, State University of New York at Buffalo (see Figure 1). The School has offered a wide range of courses over the years encompassing a variety of management subdisciplines.

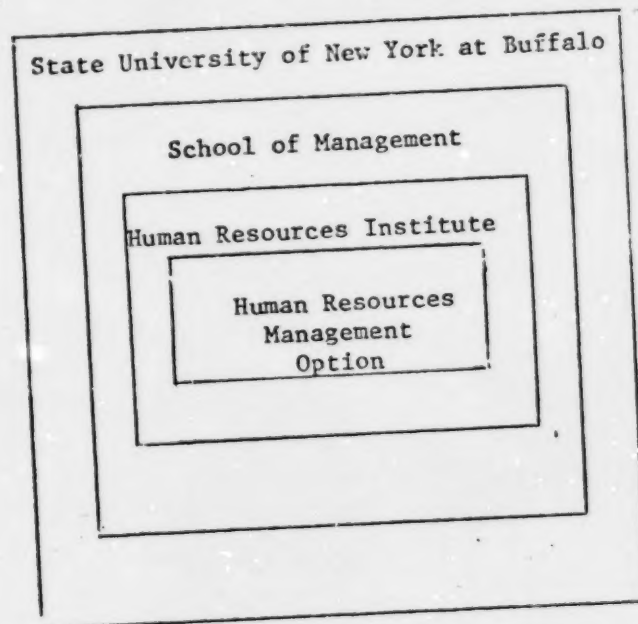


Figure 1

Location of Human Resources Option
within the SUNYAB System

Recently, however, many faculty members have become increasingly aware that the field of human resources management and manpower development is experiencing a dramatic transformation. Recent course offerings have reflected this awareness. On September 1, 1974, a new elective option in Human Resources Management was added to the MBA curriculum. The primary objective of this program is to provide students with a broad management education as well as with the theoretical and practical skills required to

assume a career role in the applied human resources field.

Those students electing the HRM Option generally spend four academic semesters in residence and, in addition to the basic MBA core, complete a prescribed sequence of four courses in the human resources area (see Appendix E). While not a required part of the program, HRM students are encouraged to obtain on-site project experience in the manpower-human resource departments of selected organizations by means of one semester paid employment traineeships, credit bearing internships, or independent study projects. In addition, as part of the HRM Option, students must select two human resources management electives and two general electives. The Management Information Systems in the Public Sector course (MGS 695), described herein, qualifies as an HRM elective (see Appendix A).

B. Statement of Course Purpose

Management Information Systems in the Public Sector provides an introduction to Management Information Systems (MIS) concepts and techniques. It is designed to prepare students to develop MISs in their professional settings and to assist them in evaluating existing MISs. Students are exposed to concepts drawn from Systems Theory, Information Theory, Management Theory, Data Base Development, Computer Use and Control in the Public Sector. The principles discussed are then applied to individual projects drawn from the student's work setting.

II. MODEL OF COURSE STRUCTURE

A. Course Goals

1. Acquaint the student with MIS terminology.
2. Acquaint the student with problems inherent in the design of MISs.
3. Acquaint the student with problems in measuring input and output values in the public sector.
4. Acquaint the student with the potential power of computers, allowing him/her to judge when the computer resource might profitably be applied.
5. Acquaint the student with the design, development and maintenance of data-bases.
6. Give the student an opportunity to apply the knowledge gained from the formal class setting to his/her work setting.
7. Afford the student an opportunity to discuss with others who deal in related problems his/her particular difficulties in information processing to "see how others approach the problem."

B. Course Content

1. Fundamentals of Data Processing.
2. Introduction to Management Information Systems.
3. Systems Theory.
4. Information Theory.
5. Management Theory (as it applies to MIS design and development).
6. Data Bases.
7. Information in the Public Sector
8. Information for Control in Non-Profit Organizations.
9. Application of MIS to work setting.

C. Overview of Instructional Strategies

1. The primary method for introducing new material was a series of lectures, each approximately one and one-half hours long. These lectures insured that all necessary materials were covered. Class discussion of points raised during the lectures was encouraged by taking questions as they arose during the formal portion and by requiring student participation during the last hour of the period. This last portion consisted of a class discussion of assigned readings which paralleled the lecture material in addition to further exploration of material raised during the instructor's presentation.

2. The variety of student background and depth of experiences within their agencies added to the class discussions. The majority of the class consisted of students who were involved in the area of manpower or social services for the County or City and had several years of on-the-job training upon which to draw.

3. Each student was required to apply to concepts discussed in class to a problem in their work setting. They were encouraged to give periodic progress reports on their projects and bring problem areas to the attention of the class to obtain alternative viewpoints to facilitate solving the problem.

D. Assessment System

1. Course

a. A formal course assessment was conducted during the last week of class (see Appendix B).

b. Each student was asked to provide a written assessment of the course discussing any areas for improvement or strengths during the last class meeting (see Appendix B).

c. Verbal assessment was solicited at two points during the course to determine how the theoretical materials might be made more meaningful.

2. Students

a. A take-home exam was given to the students at the end of the formal lecture series. (See Appendix C.)

b. A formal write-up of the term project along with an oral presentation to the class was required from each class member. (See Appendix D.)

c. Student participation in class discussion over assigned readings was monitored.

III. DESCRIPTION OF INSTRUCTIONAL TOPICS

To acquaint the students with the necessary background to develop their own MISs the course was divided into three broad sections. The first section covered MIS theory and application in general; the second portion discussed peculiarities of the public non-profit sector as they apply to MIS design; and the third section gave the student an opportunity to practice what had been discussed. While all sessions involved class discussion, the early sessions placed more emphasis on lectures while later sessions were more discussion oriented.

A. Fundamentals of Data Processing

Rationale: The purpose of this session was to familiarize the student with the physical hardware available to data processing centers, both unit record equipment and third generation computer facilities. Additionally, software and procedures were discussed and relevant terminology was defined.

Instructional Content:

1. History of Data Processing
2. Computer Generations
3. Term Definition
4. Fundamental Data Processing Operation
5. Unit Record Concepts
6. Five Functional Units of a Computer
7. Computer Hardware
8. Number Systems and Their Representation in Memory.
9. MIS Development and Documentation
10. Structured Flowcharts

Instructional Method: This session was a lecture session assisted by 35 mm slides which showed the hardware and flowchart techniques under discussion. It was primarily an orientation and background session designed to provide a basis for understanding the literature and later sessions.

B. Introduction to Management Information Systems

Rationale: The purpose of this session was to give the student a more in-depth understanding of the parts of a management information system.

Instructional Content:

1. History
2. Increases in requirements for processing information
3. Use of information for control
4. Data bases
5. Blending of Managerial Accounting, Management Science, Management Theory and Computer Technology to produce Management Information Systems
6. Structure of a MIS
7. Discussion of Readings
 - a. "Information Systems in Perspective" by Joel D. Aron
 - b. "Management Misinformation Systems" by Russell L. Ackoff
 - c. "Management Misinformation Systems - Another Perspective" by Alfred Rappaport.

Instructional Method: This session and the ones that follow it up to project presentation was an hour and one-half lecture followed by a group discussion period of one hour. Students were expected to have read required readings and be prepared to discuss them in depth.

C. Systems Theory

Rationale: The purpose of this session was to acquaint the student with relevant concepts from General Systems Theory. This orientation was then used to lead into Systems Analysis and Development.

Instructional Content:

1. General Systems Theory - open/closed systems, entropy, input, transformation, output, boundaries, interface, subsystems, environment, black boxes, equifinality.
2. Control in Systems/Feedback
3. Filtering/Decoupling/Slack
4. Systems Analysis
5. Discussion of Readings
 - a. "Towards a System of Systems Concepts" by Russell L. Ackoff
 - b. "Organizations and the System Concept" by Daniel Katz and Robert L. Kahn

D. Information Theory

Rationale: The purpose of this session was to acquaint the student with relevant concepts from Information Theory. This orientation was later used to examine attributes of information in MISs.

Instructional Content:

1. Definition of Information
2. Attributes of Information
3. Theory of Communication
4. Quality of Information
5. Redundancy
6. Data Reduction
7. Age of Information

8. Discussion of Readings

- a. "The Information Theory" by Francis Ballo
- b. "The Value of Information" by Rudolph E. Hirsch
- c. "Human Problem Solving: The State of the Theory in 1970"
by Herbert A. Simon and Allen Newell
- d. "An Experimental Evaluation of Information Overload in a
Production Environment" by Norman L. Chervany and Gary W. Dickson

E. Management Theory

Rationale: The purpose of this session was to acquaint the student with relevant concepts from management theory, as they apply to information for control in organization. This orientation was used to examine why MIS theory and practice differs within organizational hierarchies.

Instructional Content:

1. Taxonomies of Management
 - a. Anthony - 3 levels of management
 - b. Simon - programmed/non-programmed decisions
 - c. Forrester - feedback loops
 - d. Dearden - horizontal/vertical information systems
 - e. Scott/Morton - synthesis
2. Informational Requirements of Managerial Decisions Based on Taxonomies
3. Human Considerations in MIS design
4. Discussion of Readings
 - a. "The Short and Glorious History of Organizational Theory" by Charles Perrow
 - b. "Organization Design: An Information Processing View" by Jay R. Galbraith
 - c. "Approaches to Information Evaluation" by Roman R. Andrus
 - d. "MIS is a Mirage" by John Dearden
 - e. "Myth of Real-Time Management Information" by John Dearden
 - f. "Real-Time Management Information - Let's Not be Silly" by R.V. Head

F. Data Bases

Rational: The purpose of this session was to acquaint the student with relevant concepts in data base development and maintenance. File structures and methods of linking and accessing were examined.

Instructional Content:

1. File Construction and Record Layout
2. Sequential Files
3. Random Files
4. Lists
5. Data Base Administration
6. Codes, Check Digits and Forms Design
7. Discussion of Readings
 - a. "New Look at Computer Data Entry" by Raymond Ferrar and R.L. Nolan
 - b. "Data Base Systems: Putting Management Back in the Picture"
by John W. Luke
 - c. "Database Management Systems Tutorial" by Gordon C. Everest

G. Information in the Public Sector

Rationale: The purpose of this session was to explore the differences between the private sector and the public sector and to begin to examine how MIS theory might be applied to public sector management.

Instructional Content:

1. Nonprofit and Profit-Oriented Organizations
2. Characteristics of Nonprofit Organizations
3. Bureaucracy and Management Control
4. Discussion - an in depth discussion occurred in this module exploring how the student organizations functioned, comparing and contrasting them to each other and to the private sector. Problem areas within the organizations were identified.

Instructional Method: From this point on the students felt more at ease because they were on somewhat familiar ground and the lectures became more guided class discussion. The instructor kept the discussion on track and moved on to the next topic area when discussion died down, but no longer gave extended periods of monolog. It should also be noted that from here on out the instructor was challenged more rather than taken on blind faith.

H. Public Sector Control

Rationale: The purpose of this session was to explore methods of control in public organizations and examine the implications of these methods on information flow and content.

Instructional Content:

1. Control Structure: Account Classification
2. Control Structure: Input and Output
3. Pricing
4. Discussion

I. Programming and Budgeting

Rationale: The purpose of this session was to explore methods for identifying programs and establishing information flows to control them.

Instructional Content:

1. Programming: New Programs
2. Programming: Ongoing Programs
3. Budgeting
4. Discussion of Readings
 - a. "System Support for a Financial Planning Model" by R. H. Sprague, Jr.
 - b. "Abstracts of Financial Planning Models" by Bernard P. Pzielinski

J. Information Flows

Rationale: The purpose of this session was to explore information flows in non-profit organizations, analyzing methods of collecting, transforming and disseminating information, and application of systems analysis to public organizations. Future trends in MFS were also discussed.

Instructional Content:

1. Operating Procedures
2. Reporting Procedures
3. Systems Analysis Applied to Public Sector
4. Discussion of readings:
 - a. "Resistance to Rational Management Systems" by Chris Argyris
 - b. "The Behavioral Side of MIS" by Gary W. Dickson and John K. Simmons
 - c. "Management in the 1980's" by Harold J. Leavitt and Thomas L. Whisler
 - d. "Management in the 1980's Revisited" by J.G. Hunt and P.F. Newell

K. Summary and Exam

Rationale: The purpose of this session was to summarize the theoretical content of the preceding sessions. A take-home exam (see Appendix C) was given to the students to allow assessment of their understanding of the course.

Instructional Method: This session was primarily a discussion and review session. It laid the groundwork for the class presentations which occupied the remainder of the class time. (See Appendix D for a list of titles.)

L. Class Presentations

Rationale: The purpose of the class presentations was to afford the student the opportunity to explain in depth the information system project he had been developing during the course. This provided insights to the other students as to how different agencies perceived and worked with problems

and gave the presenter a critical review of his work.

Instructional Method: Each student had one hour and fifteen minutes to present his project. At the end of the term the student submitted a written report on the program.

IV. CONCLUSIONS

A. Evaluation

Students were evaluated on the basis of their class participation, the written exam, the oral presentation of their project and the written report of the project. All students received a letter grade although they had the option of talking the course pass/fail. Students who did not submit all required materials by the end of the semester were given an "incomplete." The course and the instructor were evaluated during the last week of class by the School of Management course evaluation. (See Appendix B.)

B. Recommendations

The following recommendations are based on the instructor's experience with the group and input from the students:

1. Introduce the public-sector material earlier in the course. The students relaxed and became more involved after this material was introduced. Had it been first, they would have been more confident during the MIS theory portion and would have participated more. After they discovered they could talk and be listened to, they became much more involved in the course.
2. Don't depend on the project to unify the course. While it does tie everything together at the end, it leaves the student floundering during the course. Approach the subject with a problem that can be used to apply techniques as the course develops.
3. Be more practical in orientation. Certain sections, especially on information theory, were too abstract to appeal to a student who has

been working for several years.

4. Provide the students with a written handout which contains a definition of the terms used. They has a great deal of trouble initially with the readings because of the terminology. A brief dictionary would have helped.

-0-

May, 1978/k

Appendix A
Course Syllabus

SCHOOL OF MANAGEMENT

Department of Management Systems

Course: MGS 695, Seminar in Management Information Systems

Instructor: Robert P. Carveny

Office: Crosby Hall, Room 221A

Phone: 631-2049; 2338

Office Hours: Monday - 5:30 - 6 p.m. and 8:45 - 9:15 p.m.
and by appointment

Texts: Anthony, R.N. and Werzlinger, R., MANAGEMENT CONTROL IN
NONPROFIT ORGANIZATIONS, Irwin, 1975

Davis, G.B. and Everest, G.C., READINGS IN MANAGEMENT
INFORMATION SYSTEMS, McGraw-Hill, 1976.

Objective: The objective of this course is to introduce the student
to the theoretical principles of Management Information
Systems and to apply these principles to information systems
in the public sector. Concepts covered will be System,
Theory, Information Theory, Management Theory, Data Bases
and Computer Use.

<u>Grading:</u>	Class Participation	25 Points
	Homework	15 points
	Mid-Term	30 points
	Group Project	30 points

MGS695: Management Information Systems in the Public Sector Course
Outline and Reading Assignments (Revised)

January 17 Blizzard (*Class Cancelled*)

24 Introduction.

31 Blizzard (*Class Cancelled*)

February 7 Fundamentals of Data Processing

14 Introduction to Management Information Systems
Read:Davis, pp 1-21

21 Systems Theory
Read:Davis, pp 72-78
Ackoff, R. L., "Towards a System of Systems Concepts"
(Handout)

28 Information Theory
Read:Davis, pp 22-50, 61-71

March 7 Management Theory
Read:Davis, pp 79-89, 102-140

14 Data Bases
Read:Davis, pp 147-187

21 Information in the Public Sector
Read:Anthony, Chapters 1, 2, 3, 4

28 Public Sector Control
Read:Anthony, Chapters 5, 6, & 7

April 4 Programming and Budgeting
Read:Anthony, Chapters 8, 9, & 10
Davis, pp 199-208

11 Information Flow
Read:Anthony, Chapters 11, 12, & 12
Davis, pp 245-265

18 Summary and Mid-Term Exam
Read:Anthony, Chapters 14
Davis, pp 266-284

25 Group Presentation

May 2 Group Presentation

9 Group Presentation

Appendix B
Assessment System

Sample of the form used to gather written comments.

<u>Dept.</u>	<u>Course</u>	<u>Principal Instructor</u>	<u>Semester</u>	<u>Year</u>
Comments pertinent to improving course and/or instructor				

EVERY
CS 695

SECTION

SEMINAR

SCHOOL OF MANAGEMENT
ENROLLMENT 1 10

RESPONSES 1 11 (110%)

ACT - SPRING 1977

RESPONDENT INFORMATION		PERCENTAGE RESPONSES					NO. RESP.	CLASS MEAN	CLASS S.D.
		1-2	3-4	5-6	7-8	9-10			
PERCENTAGE OF MAJORS		27%							
PERCENTAGE OF UNDERGRADUATES		0%							
PERCENTAGE TAKING REQUIRED		9%							
1. IN COURSE I WORKED VERY HARD		0%	13%	25%	50%	13%	8.	7.0	1.8
2. I ATTENDED CLASSES ALWAYS		0%	36%	63%	0%	0%	8.	4.9	.8
TIME INSTRUCTOR									
4. LEMIENT	27%	27%	27%	18%	0%	DEMANDING	11.	4.1	2.4
7. STIMULATING	9%	27%	27%	27%	9%	BORING	11.	5.4	2.5
8. WELL-PREPARED	55%	18%	18%	9%	0%	POORLY PREPARED	11.	2.9	2.0
9. HAND TO FOLLOW	36%	27%	0%	0%	36%	EASY TO FOLLOW	11.	4.9	3.6
10. ACCESSIBLE TO STUDENTS	62%	9%	9%	0%	0%	INACCESSIBLE TO STUDENTS	11.	1.8	1.3
11. INTOLERANT OF OTHER VIEWS	10%	0%	0%	30%	60%	TOLERANT OF OTHER VIEWS	10.	8.4	2.5
12. HAS COMMAND OF SUBJECT	62%	9%	9%	0%	0%	LACKS COMMAND OF SUBJECT	11.	1.8	1.5
13. CONSIDERATE TO STUDENTS	70%	30%	0%	0%	0%	INCONSIDERATE TO STUDENTS	10.	1.7	.9
14. USES ILLUSTR. EFFECTIVELY	40%	20%	10%	20%	10%	USES ILLUSTR. INEFFECTIVELY	10.	4.2	3.1
15. OFTEN MISSES CLASS	0%	0%	0%	9%	91%	NEVER MISSES CLASS	11.	9.2	.8
16. NEVER IS LATE	91%	0%	9%	0%	0%	OFTEN IS LATE	11.	1.5	1.2
READING MATERIALS									
17. BORING	36%	27%	18%	9%	9%	STIMULATING	11.	4.3	2.7
18. INTEGRATED WITH CLASS	36%	18%	27%	9%	9%	NOT INTEGRATED WITH CLASS	11.	3.9	2.7
19. READING LOAD TOO LIGHT	0%	0%	27%	36%	36%	READING LOAD TOO HEAVY	11.	7.8	1.7
20. READINGS TOO DIFFICULT	54%	20%	20%	0%	10%	READINGS TOO EASY	10.	3.9	2.5
ASSIGNMENTS									
21. USEFUL TO COURSE	40%	40%	10%	10%	0%	USELESS TO COURSE	10.	3.1	2.1
22. UNCLEAR	9%	0%	9%	9%	73%	CLEAR	11.	8.5	2.5
23. WELL CRITIQUED	36%	27%	9%	9%	18%	NO COMMENTS	11.	4.5	3.3
EXAMINATIONS									
24. FAIR	67%	33%	0%	0%	0%	UNFAIR	3.	2.0	1.4
25. LACKED INSTRUCTIONAL VALUE	0%	33%	0%	33%	33%	HAD INSTRUCTIONAL VALUE	3.	6.7	2.1
26. REFLECTED IMPORTANT POINTS	0%	67%	33%	0%	0%	WERE HIT-PICKING	3.	4.0	.8
OVERALL COURSE REACTION		1	2	3	4	5	6		
27. ELEMENTS ENRICHED ONE ANOTHER	10%	60%	0%	10%	20%	0%	10.	2.7	1.3
28. TURNED ME OFF TO THE SUBJECT	0%	9%	18%	9%	27%	36%	11.	4.6	1.4
29. I LEARNED A GREAT DEAL	18%	27%	9%	36%	0%	9%	11.	3.0	1.3
30. CONTENT WAS RELEVANT	27%	36%	9%	18%	0%	9%	11.	2.5	1.5
31. PERSONALLY FULFILLING	9%	9%	36%	18%	18%	9%	11.	3.5	1.4
OVERALL REACTION SCORE	0%	0%	0%	0%	0%	0%	0	0.0	0.8
EXTRA QUESTIONS		1	2	3	4	5	6		
32. WOULD RECOMMEND INSTRUCTOR	45%	36%	9%	9%	0%	0%	11.	1.8	.6
33. WOULD RECOMMEND COURSE	45%	9%	18%	18%	0%	9%	11.	2.3	1.3
34. FELT INSTRUCTOR WAS EXCELLENT	36%	27%	18%	9%	9%	0%	11.	2.3	1.3
35. FELT COURSE WAS EXCELLENT	36%	18%	36%	10%	10%	0%	10.	2.9	1.8
36. WOULD PROMOTE INSTRUCTOR	27%	27%	45%	0%	0%	0%	11.	2.2	.8

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Appendix C
Take Home Exam

- 1) During the semester we have discussed topics which range from General Systems Theory to flowcharting and data structures. Examine your agency in terms of the concepts we have discussed in class and/or that have been developed in Anthony or the readings. Start with a systems overview of your agency and develop your discussion down to your particular function showing the changes in managerial decision levels on the way down, etc. After development of your function, decide on an area in which you currently do not collect data and develop a scheme for gathering said data in a manner which would aid you in some decision process. Finally, develop an overview flowchart of your agency and a detailed flowchart of your function which goes with your text.

Limit your text to 7 typed pages.

- 2) There are basically two schools of thought on the usefulness of MIS in the real world. Several of the articles we read in Davis this spring were supportive of one side of the argument or the other. (For example Dearden is on one side, Luke on the other.) Drawing on your understanding of the readings:
 - a. Summarize the two positions (with appropriate article references)
 - b. Compare and contrast the various viewpoints
 - c. Where do you come down on the question of the usefulness of MIS?

Appendix D
Titles of Projects

Class Project: Instructions to Students

You are to develop a project within your work setting where you can apply the concepts developed in class. The project can be over any real problem, as long as it involves information. How you approach the project and what it becomes will evolve over time. To ensure closure on the project by the end of the term, use the following steps:

1. Make an initial proposal. We will discuss it to make sure it is viable within the time available.
2. Develop a Gantt Chart showing each subtask and time required to perform task.
3. Make periodic progress reports, updating Gantt Chart.

You will make an oral presentation of the project to the class and give me a written report at the end of the term.

If two or more of you work at the same agency you will form a team and work on a joint project.

List of class projects:

1. Western New York Minority Manpower Consortium - Multi-agency Manpower Service Proposal.
2. City of Buffalo Management Information System: Proposed revision to CETA Titles II and VI (Special Projects) Regulations and in particular, revisions of Forms Preparation Handbook.
3. County of Erie CETA Consortium, Monitoring of Title VI Program.
4. Management Information System: City of Buffalo, Division of Manpower Planning.
5. A Manpower Management Information System for Mental Health.

APPENDIX E

HUMAN RESOURCES MANAGEMENT
OPTION CURRICULUM

Human Resources Management Option Curriculum

Business Track MBA

First Semester (Fall)

- MGO 605 Mathematical Analysis for Management
- MGS 601 Introduction to Computer (1.5 credits)
- MGA 604 Financial Accounting
- MGE 650 Economic Analysis for Management
- MGB 601 Behavioral and Organizational Concepts for Management I

Third Semester (Fall)

- MGS 604 Strategic Management
- MGB 650 Organization Development Skills
- MGI 661 Collective Bargaining
- MGI 794 Manpower Planning and Administration
- Human Resources Management Elective+

Public Track MBA

First Semester (Fall)

- MGO 605 Mathematical Analysis for Management
- MGS 601 Introduction to Computer (1.5 credits)
- MGA 604 Financial Accounting
- MGE 650 Economic Analysis for Management
- MGB 601 Behavioral and Organizational Concepts for Management I

Third Semester (Fall)

- MGT 616 Public Policy Formation and Analysis
- MGB 650 Organization Development Skills
- MGI 621 Personnel and Labor Relations in the Public Sector
- MGI 794 Manpower Planning and Administration
- Human Resources Management Elective+

Second Semester (Spring)

- MGO 606 Probability and Statistics for Management
- MGI 671 Contemporary Human Resource and Industrial Relations Issues
- MGF 625 Financial Management
- MGM 625 Marketing Management
- MGI 780 Manpower Policy and the Development of Human Resources
- MGB 602 Behavioral and Organizational Concepts for Management II (1.5 credits)

Fourth Semester (Spring)

- MGS 605 Operations Management
- MGT 617 Public Policy Environment of Management
- Human Resources Management Elective+
- General Elective++
- General Elective++

Second Semester (Spring)

- MGO 606 Probability and Statistics for Management
- MGI 671 Contemporary Human Resource and Industrial Relations Issues
- MGF 625 Financial Management
- MGM 625 Marketing Management
- MGI 780 Manpower Policy and the Development of Human Resources
- MGB 602 Behavioral and Organizational Concepts for Management II (1.5 credits)

Fourth Semester (Spring)

- MGS 611 Strategic and Operations Management in the Public Sector
- MGE 631 Economics of the Public Sector
- Human Resources Management Elective+
- General Elective++
- General Elective++

All courses are 3 hours credit unless otherwise noted.

- The six courses which comprise the HRM Option.

+ The two HRM electives must be selected from courses offered by the Department of Organization and Human Resources or, upon approval of the option director, an appropriate course from another department in the University.

++ It is expected that the two general electives will be used to enroll in a field project such as an internship or to enroll in courses outside the HRM Option. Upon request, however, a student will be allowed to combine an HRM elective and a general elective to complete a six credit internship.

HRM Electives

- MGB 607 Motivation and Leadership
- MGI 697 Employment Discrimination and Development of Affirmative Action Plan
- MGI 781 Planning and Implementation of Public Human Resources Programs
- MGI 695 Dispute Settlement in Labor Management Relations

- MGB 609 Structure of Organizations and Their Environment
- MGI 741 Comparative Industrial Relations Systems
- MGI 625 Wage and Salary Administration
- MGI 757 Public Policy and Labor Relations
- MGI 696 Political Dimensions of Manpower Policy